

IN THE SPECIFICATION

Please amend the first full paragraph on page 9 as follows:

Operator console station 400, depicted in greater detail in Figure 13, allows for direct control of the operating parameters of wire winding machine 300. Operator console 400 comprises pedestal 402, on which is mounted control panel 404 and remote data terminal ~~[[406]]~~ 410. A safety interlock, such as a footswitch 401, is also a part of the console station 400. The console station 400 and footswitch 401 are moveably connected to the wire winding machine 300 by a data link, and may be placed in any position convenient or necessary for operation of the wire winding machine 300, as may be dictated by the environment, efficiency, safety concerns, or the like.

Please amend paragraph 5 on page 12 as follows:

The wire guide 356 once more extends from the transfer arm 352, assuming position 4-E, as depicted in Figure 4H. This places the wire segment attached to the wire guide 356 against the mandrel 324-L in a position that lies generally between the 6 o'clock and 9 o'clock radial positions of mandrel 324-L. As described more fully below, placing the wire 12 in this position inserts the wire 12 into the open jaws of a cutting and clamping assembly integral to mandrel 324-L. The cutting and clamping assembly is actuated by left mandrel end cap 326-L being attached to the left mandrel 324-L, through actuation of the left mounting plate 328-L in the direction of housing_302 (see Figure 2). Actuation of the cutting and clamping assembly securely clamps the wire 12 to the left mandrel 324-L, and simultaneously cuts the wire 12.

Please amend the beginning of page 16 as follows:

operation is well known in the art. For a more complete and unified understanding of a typical traverse mechanism, one is referred to the disclosure found in U.S. Patent No. 5,499, 775, which as noted above, is expressly incorporated herein by reference. Briefly, however, traverse

502 includes an oscillating traverse arm or ~~(not shown) device 518~~. The oscillating traverse arm ~~[[518]]~~ is connected to and driven by the belt 512 and is further stabilized by a guide structure contained within the housing 510. In the embodiment disclosed herein, the traverse arm 518 ~~comprises~~ carries a wire directional control device that is ~~also~~ indicated generally by the numeral 518 and shown specifically in figures 8A and 8B. ~~Thus the directional control device is also referred to as a traverse arm.~~ As will be described later in more detail, wire is fed through the wire directional control device 518 and to one of the two mandrels 324. The servomotor (not shown) is controlled by a programmable controller 452 (see Figure 14). During operation, the servomotor (not shown) receives periodic control signals from the controller 452 and continues to position the wire directional control device 518 at certain programmed command positions. Effectively, the programmable controller 452 controls the traversing of the wire directional control device 518 in relationship to the rotation of each of the mandrels 324 such that the wire or cable being wound is wound according to a programmed configuration.

Please amend the first full paragraph of page 17 as follows:

In the case of the embodiment illustrated in figure 7, the traverse 502 is supported in cantilever fashion from member 540. Further, a mounting plate 542 is secured to member 534 and projects inwardly therefrom. Mounting plate 542 is adapted to support pulley 514 and the servomotor 516 ~~(not shown)~~. Another mounting plate 544 is also mounted to the frame 504. The actuator 506 in the case of the embodiment illustrated in figure 7 includes a double-acting pneumatic cylinder 546. Pneumatic cylinder 546 is anchored between mounted plate 544 and a frame member 548 that forms a part of the internal frame structure of the wire-winding machine 300.

Please amend the third paragraph on page 18 as follows:

The other control roller ~~[[566]]~~ 568 is rotatably mounted on a movable arm 572 and is

referred to as a moveable roller. In the case of the embodiment illustrated herein, movable arm 572 is pivotally mounted to the plate 560 by a pivot pin 574. Mounted on one end of the movable arm 572 is shaft 576. Control roller 568 is rotatably mounted about the shaft 576.

Please paragraph 4 on page 18 as follows:

Secured to the plate or frame 560 is a fixed shaft 578. One end of a spring 580 is secured to the fixed shaft 578 and extends therefrom to where another end of the spring 580 connects to shaft 576. Spring 580 effectively biases the movable control roller 568 towards the fixed control roller 566. In figure 8A, it is seen that the spring 580 pulls the arm 572 and movable controller roller 568 to a closed position against the fixed control roller 566. However, as viewed in figure 8B, the movable arm 572 may rotate counterclockwise in response to a wire or cable 12 being fed through the device 518 in the direction indicated in figure 8B. Thus, the wire or cable threaded through the directional control device 518 is free to move from the inlet side idler rollers 562 through the control rollers 566 and 568 and on through the outlet side rollers 564.

Please amend paragraph 1 on page 29 as follows:

The provision of a network interface to see control system 450 provides significant flexibility in the operation and maintenance of the wire-winding machine 300. For example, a plurality of wire winding machines 300 may be in operation simultaneously, with each machine 300 winding a different type of ~~water~~ wire or cable. Sophisticated tasks such as the loading or troubleshooting of programs 454, the alteration of previously loaded wire winding parameters, or the direct actuation of certain specific components on one or more of the wire winding machine 300 -- tasks that may be beyond the capacity of the operators sequencing the wire winding machine 300 through their operations and removing the wound packages therefrom -- may be performed by engineers or technicians from a computer in their office, across the network. As

another example, one or more wire winding machines 300 may be directed through a long or intricate series of wire winding operations by a separate stored program or "script" running on a computer connected to the network, and controlling the wire winding machine(s) 300 via its network interface 458.

Please amend the first paragraph on page 31 as follows:

A functional block diagram of one illustrative embodiment of a network interface 458 is depicted in figure 15. The network interface 458 communicates with the control system 450 via a local bus 614. The local bus 614 may comprise a standard backplane bus such as ISA or PCI, as are well known in the art, or alternatively may comprise the data bus of a processor 452. At the other side, the network interface 458 is connected to the network media 459, such as for example an eight-conductor RJ-45 cable. The network interface 458, and the entire wire winding machine 300, are DC-isolated from the network media 459 by interface transformers 600. Dynamic data pulses passing through the interface transformers 600 from the network media 459 are processed by receive logic 602, and transmit logic 604 prepares data pulses for transmission through the interface transformers 600. The receive and transmit logic blocks 602, 604 contain analog-to digital and digital-to analog converters, respectively, shift registers for serial/parallel format transfer, and related circuits. The encounter/decoder block 606 translates data between the digital domain and the encoding scheme utilized by the network 459 (such as Manchester, NRZ, or the like, as are known in the art), under the control of the Media Access Control (MAC) engine 608. The ~~encounter~~encoder/decoder block 606 includes a phase locked loop and associated timing circuits to precisely encode and decode transmit and receive data, respectively. The MAC engine controls the network interface 458, including the assembly/extraction of data into/from Ethernet frames, compliance with the CSMA/CD protocol, snooping network traffic to identify data frames transmitted to it, performing data integrity checks and error correction, and similar implementation and housekeeping tasks. The MAC engine 608

is in data communications with computer memory 610, which may include RAM and ROM. The memory 610 provides program storage for the MAC engine 608, data buffering, scratch space for calculations, and the like. The local bus controller 612 formats the logical and timing packaging of data transferred between the network interface and the local bus 614. Where the local bus 614 comprises a standard backplane bus such as an ISA bus, the network interface